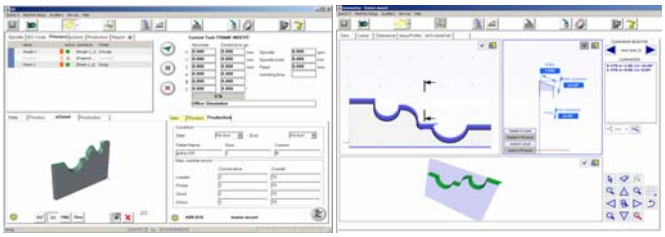
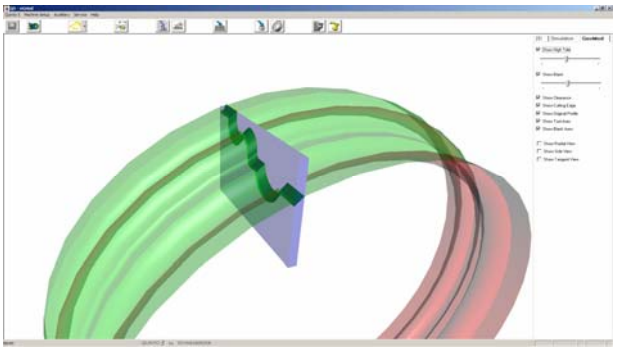
Insert for standard woodprofile

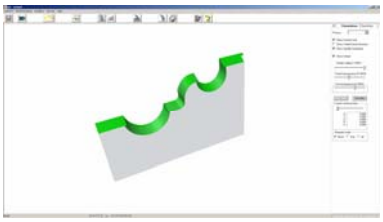
A09-010



Woodinsert Grinding in Quinto 5 uses the full 5 axis capacity of the SIRIUS HPM in order to achieve the required side and radial clearances of the insert when mounted on the milling cutter. A 3D view shows the future insert as milling the wood form and generates based on rake-, shear- and seatangle and the given clearance angles the required clearances with respect to the naked profiled insert. In the below shown cycle the time for cleaning and lasermarking is a masked time, as it is executed while another insert is being ground. In most of the standard profiles automatic routines calculate wheel pathes along the profile, which are shown in a processviewer, or can finally be visualized in eGrind.



1. Cycletime for Production

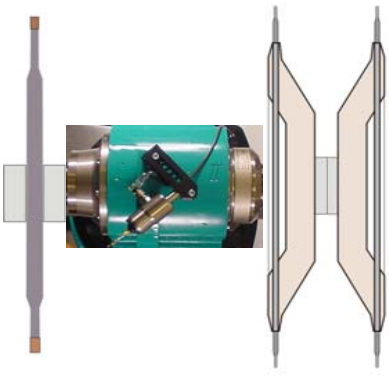


Workpiece: Blanksize 45x40x2 Material CARBIDE						
Operations	Probe	Prf Rough	Prf Pregr	Prf fin	Load/Unload	Clean/Laser
Feed [mm/Min]	2000	800	80	70	3000	3000
Power [kW]		2	1	1	1	1
Cutting feed [m/s]		32	24	24	32	32
Used wheels		1	2	3		
Grinding time [s]	38	167	39	42	8	36
Total cycle time	5 Min 30					

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

2. Used Grinding Wheels

1	14F1 Ø300 D91 R1,5
2	14EE1 Ø300 D76 R1,2
3	14EE1 Ø300 D64 R0,4



1 3 2

3. Machine and Software Requirements

Machines: 5 axes CNC grinders : SIRIUS HPM
Control: Fanuc 160i
Accessories: STL6050 stack, Lasermarking,Cleaning
Coolant: Synthetic Oil, pressure 6 bar
Software: Quinto 5

Responsable engineer: OP 12.6.09